

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

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1                   Claim 1 (currently amended): An isolated nucleic acid encoding an  
2    IRAK-4 polypeptide, said polypeptide having IL-1R/Toll family member signal  
3    transduction activity and at least about 98% amino acid sequence identity to SEQ ID  
4    NO:1 or to a subsequence thereof, wherein the amino acid sequence of the polypeptide  
5    comprises an alanine residue at an amino acid position corresponding to amino acid  
6    position 81 of SEQ ID NO:1, and wherein said nucleic acid comprises at least about 400  
7    nucleotides.

1                   Claim 2 (original): The nucleic acid of claim 1, wherein the polypeptide  
2    further comprises an amino acid selected from the group consisting of:  
3                   (i) a valine residue at an amino acid position corresponding to amino acid  
4    position 432 of SEQ ID NO:1;  
5                   (ii) a leucine residue at an amino acid position corresponding to amino  
6    acid position 437 of SEQ ID NO:1;  
7                   (iii) an arginine residue at an amino acid position corresponding to amino  
8    acid position 444 of SEQ ID NO:1; and  
9                   (iv) a glutamine residue at an amino acid position corresponding to amino  
10   acid position 451 of SEQ ID NO:1.

1                   Claim 3 (original): The nucleic acid of claim 2, wherein the polypeptide  
2    comprises each of the amino acids listed as (i) to (iv).

1                   Claim 4 (original): The nucleic acid of claim 1, wherein the polypeptide  
2    comprises an amino acid sequence of SEQ ID NO:1.

Claim 5 (cancelled)

1                   Claim 6 (original): The nucleic acid of claim 1, wherein the polypeptide  
2 comprises at least about 450 amino acids.

1                   Claim 7 (original): The nucleic acid of claim 1, wherein the nucleic acid  
2 comprises a cytosine at a nucleotide position corresponding to nucleotide position 242 of  
3 SEQ ID NO:2.

1                   Claim 8 (original): The nucleic acid of claim 7, wherein the nucleic acid  
2 further comprises a nucleotide selected from the group consisting of:

3                   (i) a thymine at a nucleotide position corresponding to nucleotide position  
4 1295 of SEQ ID NO:2;

5                   (ii) a thymine at a nucleotide position corresponding to nucleotide  
6 position 1302 of SEQ ID NO:2;

7                   (iii) a thymine at a nucleotide position corresponding to nucleotide  
8 position 1310 of SEQ ID NO:2;

9                   (iv) an adenine at a nucleotide position corresponding to nucleotide  
10 position 1332 of SEQ ID NO:2; and

11                   (v) an adenine at a nucleotide position corresponding to nucleotide  
12 position 1353 of SEQ ID NO:2.

1                   Claim 9 (original): The nucleic acid of claim 8, wherein the nucleic acid  
2 comprises each of the nucleotides listed as (i) to (v).

1                   Claim 10 (original): The nucleic acid of claim 1, wherein the nucleic acid  
2 comprises a nucleotide sequence of SEQ ID NO:2.

1                   Claim 11 (original): The nucleic acid of claim 1, wherein the nucleic acid  
2 comprises at least about 1350 nucleotides.

1                   Claim 12 (original): The nucleic acid of claim 1, wherein the polypeptide  
2 specifically binds to antibodies generated against a polypeptide comprising an amino acid  
3 sequence of SEQ ID NO:1.

1                   Claim 13 (original): The nucleic acid of claim 1, wherein the nucleic acid  
2 is operably linked to a promoter.

1                   Claim 14 (original): An expression cassette comprising the nucleic acid  
2 of claim 13.

1                   Claim 15 (original): An isolated cell comprising the expression cassette  
2 of claim 14.

Claims 16-30 (cancelled)

1                   D1  
2                   Claim 31 (currently amended): A method of making an IRAK-4  
3 polypeptide, the method comprising:  
4                   (i) introducing a nucleic acid into a host cell or cellular extract, said  
5 nucleic acid encoding an IRAK-4 polypeptide, said polypeptide having IL-1R/Toll family  
6 member signal transduction activity and at least about 98% amino acid sequence identity  
7 to SEQ ID NO:1 or to a subsequence thereof, wherein the amino acid sequence of the  
8 polypeptide comprises an alanine residue at an amino acid position corresponding to  
9 amino acid position 81 of SEQ ID NO:1, and wherein said nucleic acid comprises at least  
about 400 nucleotides;

10                   (ii) incubating said host cell or cellular extract under conditions such that  
11 said IRAK-4 polypeptide is expressed in the host cell or cellular extract; and  
12                   (iii) recovering the IRAK-4 polypeptide from the host cell or cellular  
13 extract.

Claims 32-62 (cancelled)

1                   Claim 63 (previously added): The method of claim 31, wherein said  
2    polypeptide comprises an amino acid sequence of SEQ ID NO:1.

Claims 64-66 (cancelled)

1                   Claim 67 (New): The nucleic acid of claim 1, wherein said IL-1R/Toll  
2    family member signal transduction activity is NF $\kappa$ B activation activity.

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